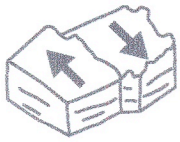
Name _____ Date _____

Types of Faults

Explore the different types of faults in the Earth's crust by completing the table below. In the column Type of Fault, arrows show the movement along the fault.

Type of Fault	Sideways Plate Movement	Up/Down Plate Movement	Example
Strike-slip 	**1.** Rocks on either side of fault move _____	Little or none	San Andreas Fault
Normal 	**2.** Forces pulling plates _____	**3.** Hanging wall slips _____, foot wall moves	Rio Grande rift valley
Reverse 	**4.** Forces moving plates _____	**5.** Hanging wall moves _____ and over the _____	Mountains in Glacier National Park

Mark each statement regarding faults and plates *T* if it is true or *F* if it is false. If the statement is false replace the underlined term with one that will make the statement true.

6. _____ In a normal fault the half of the fault that lies above is called the hanging wall.

_____

7. _____ In a reverse fault the half of the fault that lies above is called the hanging wall.

_____

8. _____ In a reverse fault rocks slip past each other. _____

9. _____ A normal fault occurs when plates converge. _____

10. _____ A strike–slip fault forms along a transform boundary. _____

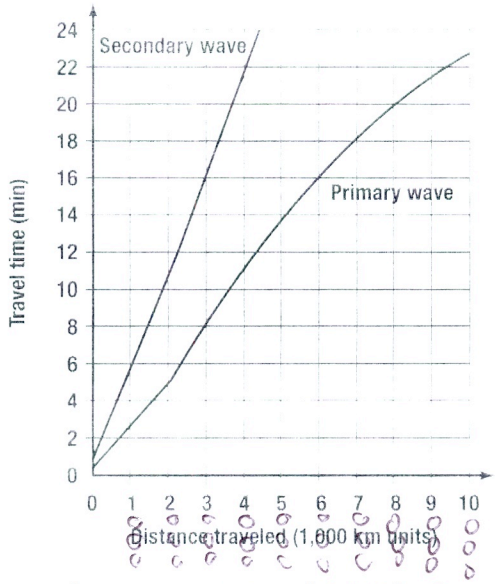
11. _____ In a normal fault the hanging wall moves up with respect to the footwall.

_____

Reinforcement

Features of Earthquakes

Directions: *The graph below shows travel time in minutes and distance traveled for primary and secondary waves. Primary and secondary waves start at the same time but do not travel at the same speed. Study the graph. Use the graph to help answer the questions that follow.*



1. How long does it take for a primary wave to travel 2,000 km?

2. How long does it take for a secondary wave to travel 2,000 km?

3. How far does a secondary wave travel in 10 min? _____

4. How far does a primary wave travel in 10 min? _____

5. What happens to the time difference between primary and secondary waves as the distance traveled gets longer?

6. Suppose a primary and secondary wave both travel a distance of 4,000 km before they are picked up by a seismograph. Which wave will arrive first?

7. How much time lag at 4,000 km will there be between these two waves?

8. Suppose both a primary and secondary wave start together and travel for 5 min. Which wave will travel farther?

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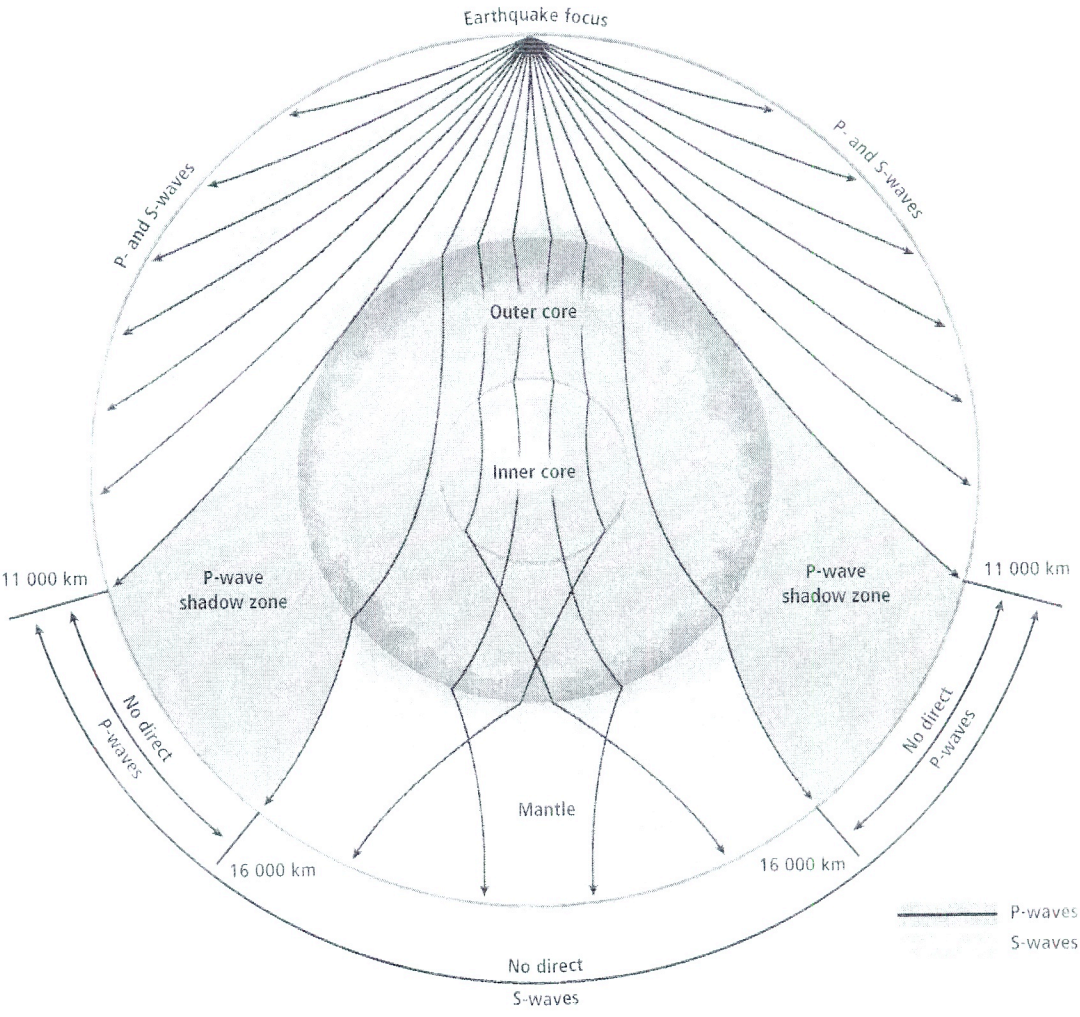
Use with Chapter 19
Section 19.2

Seismic Waves



Use with Chapter 19
Section 19.2

Seismic Waves

1. What are the three types of seismic waves produced during an earthquake?

2. Describe how the different types of seismic waves affect the rocks through which they travel.

3. What type of wave is shown traveling through the core? Explain why this is the only wave type shown in the core.

4. What happens to P-waves when they strike the inner core?

5. What is the P-wave shadow zone?

6. Why have scientists reasoned that Earth's outer core is liquid?

7. How have scientists inferred the composition of Earth's interior?